Sheet

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

OFE HARES

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

1 of

Complete if Known				
Application Number	10/631,289			
Filing Date	Filing Date 07/31/2003			
First Named Inventor	Hyldig-Nielsen, Jens			
Group Art Unit	Not Yet Assigned			
Examiner Name	Not Yet Assigned			
Attorney Docket No.	BP9804US-CN1			

	U.S. PATENT DOCUMENTS						
Examiner Initials*			ocument Kind Code ²	Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant	
			(if known)	of Cited Document	- MM-DD-YYYY	CL/Sub Figures Appear	
RN	AS	5,700,636		Sheiness et al.	12/23/97		
9214	ΑT	5,422,277		Connelly et al.	06/06/95		
RA	AU	5,759,781		Ward et al.	06/02/98		
		,					

	FOREIGN PATENT DOCUMENTS								
Examiner	Cite	Foreign Patent Document		Name of Patentee of	or .	Date of Publication	Pages, Columns, Lines		
Initials*	No. 1	Office ³	Number ⁴	Kind Code ^s (If known)	Applicant of Cited Docu		of Cited Document MM-DD-YYYY	Where Relevant Passages or Relevant Figures Appear	T⁵
9711	BN		WO97/18325		,		05/22/97		
'''	во		WO98/03678		-	_	01/29/98		
	BP		WO98/15648			_	04/16/98		
	BQ		WO95/32305		Dako A/S		11/30/95		
3797	BR		WO97/18325		Dako A/S		05/22/97		

OTHER ART - NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*						
9894	Amann, R.I. et al, Fluorescent-oligonucleotide probing of whole cells for determinative, phylogenetic, and environmental studies in microbiology. J. Bacteriology 172, 762-770 (1990)					
′	СВ	Amann, R.I. et al, Combination of 16S rRNA-targeted oligonucleotide probes with flow cytometry for analyzing mixed microbial populations. Appl. and Environ. Microbiol. 56, 1919-1925 (1990)				
	СС	Amann, R. et al, Identification in situ and phylogeny of uncultured bacterial endosymbionts. Nature 351, 161-164 (1991)				
	CD	Amann, R. I. et al, Phylogenetic identification and in situ detection of individual microbial cells withou cultivation. Microbio. Reviews 59, 143-169 (1995)				
	CE	Bauman, J.G.J. et al, Flow cytometric detection of ribosomal RNA in suspended cells by fluorescent in situ hybridization. Cytometry 9, 517-524 (1988)				
	CF DeLong, E.F. et al, Phylogenetic stains: ribosomal RNA-based probes for the identification of single cells. Science 243, 1360-1363 (1989)					
	CG DeLong, E.F. et al, Fluorescent, ribosomal RNA probes for clinical application: a research review. Diagnos. & Clin. Testing 28, 41-44 (1990)					
	СН	Fuchs, B.M. et al, Flow cytometric analysis of the in situ accessibility of escherichia coli 16S rRNA for fluorescently labeled oligonucleotide probes. Appl. and Environ. Microbiol. 64, 4973-4982 (1998)				
994	CI	Giovannoni, S.J. et al, Phylogenetic group-specific oligodeoxynucleotide probes for identification of single microbial cells. J. Bacteriology 170, 720-726 (1988)				
Examine	$\overline{}$	U(D) 1(1/2)				

Signature HORLICK Considered 1/30/06

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

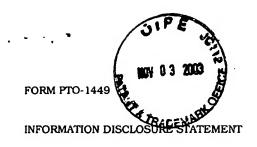
¹ Unique citation designation number. 2 Applicant is to place a check mark here if English language Translation is attached.

CJ Hahn, D. et al, Oligonucleotide probes that hybridize with rRNA as a tool to study Frankia stains in ror notules. Applied and Environ. Microbiol. 56, 1342-1346 (1990) CK Hahn, D. et al, Extraction of ribosomal RNA from soil for detection of Frankia with oligonucleotide probes. Arch. Microbiol. 154, 329-335 (1990) CL Hahn, D. et al, Detection of micro-organisms in soil after in situ hybridization with rRNA-targeted, fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992) CM Heidelberg, J.P. et al, Enumeration of Vibrio vulnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 165 rRNA sequences. Appl. and Environ. Microbiol. 39, 3474-3476 (1993) CN Heiles, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and Silla cells. BioTechniques 6, 978-981 (1988) CO Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of tysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 36, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 34, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M. Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by parial 165 rRNA sequencing: construction of oligonucleotide primers for sensitive detection by p	IIII C	Hahn, D. et al, Oligonucleotide probes that hybridize with rRNA as a tool to study Frankia stains in roc	
CL Hahn, D. et al, Detection of micro-organisms in soil after in situ hybridization with rRNA-targeted, fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992) CM Heidelberg, J.F. et al, Enumeration of Vibrio valnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993) CN Heiles, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988) CO Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER snRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Blotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Scal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Detection of immunoglobulin kappa light cha	1.17.N.	nodules. Applied and Environ. Microbiol. 56, 1342-1346 (1990)	
fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992) CM Heidelberg, J.F. et al, Enumeration of Vibrio vulnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993) CN Heiles, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in Hela and Silta cells. BioTechniques 6, 978-981 (1988) CO Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomerés in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Scal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 165 rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (199	CK	Hahn, D. et al, Extraction of ribosomal RNA from soil for detection of <i>Frankia</i> with oligonucleotide probes. Arch. Microbiol. 154, 329-335 (1990)	
oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993) CN Heites, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988) CO Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulis kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S r	CL		
(HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988) CO Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER snRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU, Scal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotid	CN	oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ.	
study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990) CP Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas spicketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic	CN	Heiles, H.B.J. et al, <i>In situ</i> hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988)	_
community. Appl. and Environ. Microbiol. 54, 703-711 (1988) CQ Just, T. et al, Flow cytometric detection of EBV (EBER saRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	cc	study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-	
Virol. Methods 73, 163-174 (1998) CR Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996) CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	СР	Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacteria community. Appl. and Environ. Microbiol. 54, 703-711 (1988)	
CS Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CC		
Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997) CT Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996) CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CR	Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996)	
CU. Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV. Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW. Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX. Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY. Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ. Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA. Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB. Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CS	Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997)	
picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993) CV Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	СТ		
fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998) CW Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CI	picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139,	
hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996) CX Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CV	Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome-labeled PNA probe. BioTechniques 24, 472-76 (1998)	
Applications and Protocols, Horizon Scientific Press, in press. CY Ward, D.M. et al, 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CV	Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3, 358-363 (1996)	
community. Nature 345, 63-65 (1990) CZ Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991) DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	C>		
DA Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CY		
oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991) DB Stefano, K. et al, Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	CZ		
Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	DA		
	DE	Quantification Technologies for Infectious Agents and Human Genetic Diseases. #948 IBC Librar	
Pluskal, M. et al, Peptide Nucleic Acid Probes and their Application in DNA and RNA Blot Hybridization Analysis. American Society for Biochemistry and Molecular Biology. Abstract #35. 85th Annual Meeting, Washington, DC May 21-25, 1994	NA	Hybridization Analysis. American Society for Biochemistry and Molecular Biology. Abstract #35.	

Examiner	HURLICK	Date	1/20/06
Signature	MURCICA	Considered	1/30/06

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Oraw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² Applicant is to place a check mark here if English language Translation is attached.



ATTY. DOCKET NO.: BP9804US-CN1

APPLICANT: Jens J. Hyldig-Nielsen, et al SERIAL NO.: 10/631,289 FILING DATE: July 31, 2003 GROUP: Not Assigned

				US PAT	ENT DOCUMENTS			
EXA	M	r	DOCUMENT		1		SUB	FILING DATE IF
			NUMBER	DATE	NAME	CLASS	CLASS	APPROPRIATE
INIT	#	AA	4,816,389	Mar. 28, 1989	Sansonetti et al.	\435	/ CLASS /	Jul. 12, 1985
11/4	4	AB	4,992,364	Feb. 12, 1991	Sansonetti et al.	¥35	 	Jan. 11, 1989
\dashv		AC	5,041,372	Aug. 20, 1991	Lampel et al.	435	 	Nov. 2, 1988
\dashv	-	AD	5,147,778	Sep. 15, 1992	Nietupski et al.	435	 / 	Nov. 29, 1988
-+		AE	5,486,454	Jan. 23, 1996	Madonna et al.	435	 / 	May 17, 1994
\dashv		AF	5,495,008	Feb. 27, 1996	Lane et al.	536\	 / 	Apr. 17, 1992
		AG	5,574,145	Nov. 12, 1996	Barry et al.	536	 / 	Dec. 22, 1993
\dashv		AH	5,582,974	Dec. 10, 1996	Nietupski et al.	435	₩	
-+		AI			Hyldig-Nielsen et al.	530		Dec. 22, 1993
-			5,612,458	Mar. 18, 1997				Dec. 22, 1994
		AJ	5,648,481	Jul. 15, 1997	Parodos et al.	536 V		Jan. 19, 1995
-		AK	5.654.417	Aug. 5, 1997	Tarr et al.	536		Apr. 14, 1995
\dashv		AL	5,677,127	Oct. 14, 1997	Hogan et al.	435 /	\	May 30, 1995
-+		AM	5,693,469	Dec. 2, 1997	Hogan	435 /	4	May 30, 1995
		AN	5,714,321	Feb. 3, 1998	Hogan	435/	1	May 30, 1995
		AO	5,723,344	Mar. 3, 1998	Mabilat et al.	436	 	Jun. 24, 1994
		AP	5,888,733	Mar. 30, 1999	Hyldig-Nielsen et al.	435	1	Oct. 2, 1996
/,}	4-7	AQ	5,888,734	Mar. 30, 1999	Cremer et al.	4/35		May 19, 1993
	#	AR	5,985,563	Nov. 16, 1999	Hyldig-Nielsen et al.	435		June 5, 1997
• • •	٧			FOREIC	ON PATENT DOCUMENTS	•		
EXA	M.		DOCUMENT				SUB	TRANSLATION
INIT.			NUMBER	DATE	COUNTRY	CLASS	CLASS A	YES NO
971		BA	EP0133288A2	Jul. 25, 1984	EPO	1	/	
+142	'	ВВ	EP0395292A2	Apr. 18, 1990	ЕРО			
		ВС	EP0497464A1	Jan. 15, 1992	EPO		1	
		BD	EP0531798B1	Jan. 9, 1984	EPO			
		BE	EP0632269A1	Jun. 24, 1994	EPO			
		BF	WO89/11548	Nov. 30, 1989	WIPO			
		BG	WO90/01560	Feb. 22, 1990	WIPO	X		
		BH	WO90/01564	Feb. 22, 1990	WIPO	/\		
		BI	WO92/15708	Sep. 17, 1992	WIPO	1	\	
\dashv		BJ	WO94/19490	Sep. 1, 1994	WIPO		1	
		ВК	WO95/32305	Nov. 30, 1995	WIPO	1/		
		BL	WO96/17956	Jun. 13, 1996	WIPO	1/		
929	A	ВМ	WO97/14026	Apr. 17, 1997	WIPO			

EXAMINER:	HORLICK	DATE CONSIDERED: 1/30/00	6

. • •			3	cc/Sub	
QVI BN	WO97/18325	May 22, 1997	WIPO NO 6 3 2003		
BC BC	WO98/03678	Jan. 29, 1998	WIPO WIPO		
ВР	WO98/15648	Apr. 16, 1998	WIPO		

· . .

		OTHER PUBLICATIONS
9714	CA	Amann, R.I. et al, Fluorescent-oligonucleotide probing of whole cells for determinative, phylogenetic, and environmental studies in microbiology. J. Bacteriology 172, 762-770 (1990)
1	СВ	Amann, R.I. et al, Combination of 16S rRNA-targeted oligonucleotide probes with flow cytometry for analyzing mixed microbial populations. Appl. and Environ. Microbiol. 56, 1919-1925 (1990)
	СС	Amann, R. et al. Identification in situ and phylogeny of uncultured bacterial endosymbionts. Nature 351, 161-164 (1991)
	CD	Amann, R. I. et al, Phylogenetic identification and in situ detection of individual microbial cells without cultivation. Microbio. Reviews 59, 143-169 (1995)
	CE	Bauman, J.G.J. et al, Flow cytometric detection of ribosomal RNA in suspended cells by fluorescent in situ hybridization. Cytometry 9, 517-524 (1988)
	CF	DeLong, E.F. et al, Phylogenetic stains: ribosomal RNA-based probes for the identification of single cells. Science 243, 1360-1363 (1989)
	CG	DeLong, E.F. et al, Fluorescent, ribosomal RNA probes for clinical application: a research review. Diagnos. & Clin. Testing 28, 41-44 (1990)
	СН	Fuchs, B.M. et al. Flow cytometric analysis of the in situ accessibility of escherichia coll 16S rRNA for fluorescently labeled oligonucleotide probes. Appl. and Environ. Microbiol. 64, 4973-4982 (1998)
	CI	Giovannoni, S.J. et al, Phylogenetic group-specific oligodeoxynucleotide probes for identification of single microbial cells. J. Bacteriology 170, 720-726 (1988)
	ငပ	Hahn, D. et al, Oligonucleotide probes that hybridize with rRNA as a tool to study <i>Frankia</i> stains in root nodules. Applied and Environ. Microbiol. 56, 1342-1346 (1990)
	СК	Hahn, D. et al, Extraction of ribosomal RNA from soil for detection of Frankia with oligonucleotide probes. Arch. Microbiol. 154, 329-335 (1990)
	CL	Hahn, D. et al, Detection of micro-organisms in soil after in situ hybridization with rRNA-targeted, fluorescently labelled oligonucleotides. J. Gen. Microbiol. 138, 879-887 (1992)
	СМ	Heidelberg, J.F. et al, Enumeration of Vibrio vulnificus on membrane filters with a fluorescently labeled oligonucleotide probe specific for kingdom-level 16S rRNA sequences. Appl. and Environ. Microbiol. 59, 3474-3476 (1993)
	CN	Heiles, H.B.J. et al, In situ hybridization with digoxigenin-labeled DNA of human papillomaviruses (HPV 16/18) in HeLa and SiHa cells. BioTechniques 6, 978-981 (1988)
	СО	Herron, P.R. et al, New method for extraction of streptomycete spores from soil and application to the study of lysogeny in sterile amended and nonsterile soil. Appl. and Environ. Microbiol. 56, 1406-1412 (1990)
	СР	Holben, W.E. et al, DNA probe method for the detection of specific microorganisms in the soil bacterial community. Appl. and Environ. Microbiol. 54, 703-711 (1988)
	cð	Just, T. et al, Flow cytometric detection of EBV (EBER snRNA) using peptide nucleic acid probes. J. Virol. Methods 73, 163-174 (1998)
	CR	Lansdorp, P.M., Close encounters of the PNA kind. Nature Biotech. 14, 1653 (1996)
	CS	Lansdorp, P.M. et al, Telomeres in the haemopoietic system. Telomers and Telomerase (eds. DJ Chadwick & G. Cardew), John Wiley & Sons Ltd., West Suxxes, UK, pp 209-222 (1997)
	CT	Lansdorp, P.M. et al, Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 5, 685-691 (1996)
	CU	Seal, S.E. et al, Differentiation of Pseudomonas solanacearum, Pseudomonas syzygii, Pseudomonas picketti and the blood disease bacterium by partial 16S rRNA sequencing: construction of oligonucleotide primers for sensitive detection by polymerase chain reaction. J. Gen. Microbiol. 139, 1587-1594 (1993)
	CV	Taneja, K.L., Localization of trinucleotide repeat sequences in myotonic dystrophy cells using a single fluorochrome- labeled PNA probe. BioTechniques 24 , 472-76 (1998)
	CW	Thisted, M. et al, Detection of immunoglobulin kappa light chain mRNA in paraffin sections by in situ hybridization using peptide nucleic acid probes. Cell Vision 3 , 358-363 (1996)
	СХ	Thisted, M. et al, Application of peptide nucleic acid probes for in situ hybridization. PNA Applications and Protocols , Horizon Scientific Press, in press.
144	CY	Ward, D.M. et al. 16S rRNA sequences reveal numerous uncultured microorganisms in a natural community. Nature 345, 63-65 (1990)

EXAMINER:	HURLICK	DATE CONSIDERED:_	1/30/06
-----------	---------	-------------------	---------

RN	cz	Weisburg, W.G. et al, 16S Ribosomal DNA amplification for phylogenetic study. J. Bacteriol. 173, 697-703 (1991)
	DA	Zarda, B. et al, Identification of single bacterial cells using digoxigenin-labelled, rRNA-targeted oligonucleotides. J. Gen. Microbiol. 137, 2823-2830 (1991)
	DB	Stefano, K. et al. Diagnostic Applications of PNA Oligomers. Diagnostic Gene Detection and Quantification Technologies for Infectious Agents and Human Genetics Diseases. 948 IBC Library Series, 19-37 (1997)
RA	DC	Pluskal, M. et al, Peptide Nucleic Acid Probes and their Application in DNA and RNA Blot Hybridization Analysis. American Society for Biochemistry and Molecular Biology. Abstract # 35. 85th Annual meeting, Washington, DC May 21-25, 1994

EXAMINER: HORLICK DATE CONSIDERED: 1/30/06